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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/570,932

03/08/2006

Craig Polta

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8953

35227 7590 05/28/2008

POLYONE CORPORATION
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EXAMINER

SANDERS, KRIELLION ANTONETTE

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

05/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/570,932	Applicant(s) POLTA ET AL.	
	Examiner Kriellion A. Sanders	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103 (a), as being unpatentable over De Vries et al, US Patent No. 3,171,827.

Devries et al discloses reflective granules that are useful for highway markings and a method for making them. The granules are made from glass spheres and a thermoplastic or thermoset binder material such as polyester, polystyrene or epoxy resins. The binders may be any suitable to form a rigid mass as described. See col. 5, lines 45-51. ASA would therefore have been an obvious selection to the art-skilled at the time of applicant's invention. The binders may also include pigments, fillers, catalysts, accelerators, solvents and other conventional adjuvants. See col. 1, line 49 through col. 2, line 15. The spheres used in the invention may be coated with a metal such as silver. Or they may be metallic spheres. See col. 4, lines 41-45. Metallic type granular material is used as colorant in the invention. See col. 3, line 65 through col. 4, line 4. Devries et al indicates that metallic aluminum flake may be incorporated into the binder for reflexivity. See col. 5, lines 25 through 34. The ordinary practitioner of the art would find it obvious to determine the most appropriate percentage of flake to use to derive the desired properties based upon the suggested ratios of the remaining components.

To incorporate the glass spheres and metallic flakes in a manner wherein they impart retroreflectivity on all surfaces and throughout the bulk of the article would have been an obvious choice in the production of the granules if maximum reflectivity were desired at the time of the invention. The polymer acrylic-styrene acrylonitrile is considered an obvious derivative of the styrene polymers generically suggested by Patentee.

Claims 1-20 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Spencer et al, US Patent No. 6,525,111.

Spencer et al discloses refractive paint compositions that are useful for marking automobiles and boats and to improve visibility road signs and emergency vehicles, etc. See col. 4, lines 30-56. The paint are made from curable binders, metal flakes glass spheres and pigments wherein the binder may be a thermoplastic or thermoset binder material such as polyester, acrylic, urethane and epoxide resins. The binders may be any suitable to form a water or solvent-based system as described. See col. 2, lines 43-59 and col. 5, lines 17-26 and 45-51. ASA would therefore have been an obvious selection to the art-skilled at the time of applicant's invention. The binders may also include pigments, fillers, catalysts, accelerators, solvents and other conventional adjuvants. See the abstract and claims 1 and 4.

To incorporate the glass spheres and metallic flakes in a manner wherein they impart retroreflectivity on all surfaces and throughout the bulk of the article would have been an obvious choice to the design of the granules if maximum reflectivity were desired at the time of the invention. An acrylic-styrene acrylonitrile would have been an obvious derivative of the acrylic polymers suggested generically by Patentee. Aluminum is an obvious choice of metal

Art Unit: 1796

flake. Also see Example 1 and Example 2 which illustrate that the aluminum flakes are used in an amount of about 0.1% of the compound.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122. The examiner can normally be reached on Monday through Thursday 8:30am-7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kriellion A. Sanders/

Primary Examiner, Art Unit 1796

Kriellion A. Sanders
Primary Examiner
Art Unit 1796

Application/Control Number: 10/570,932
Art Unit: 1796

Page 5

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